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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/520,687

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John Dung-Quang Ly

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04/25/2006

LAW OFFICES OF IMAM
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EXAMINER

WON, MICHAEL YOUNG

ART UNIT

PAPER NUMBER

2155

DATE MAILED: 04/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/520,687

Applicant(s)

LY, JOHN DUNG-QUANG

Examiner

Michael Y. Won

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment filed February 24, 2006.
2. Claims 1, 12, 13, 24, and 25 have been amended.
3. Claims 1-6 and 8-26 have been examined and are pending with this action.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6 and 8-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kodimer et al. (US 6,003,078 A) in view of Kirrmann (US 4,905,196).

INDEPENDENT:

As per **claim 1**, Kodimer teaches of a network device assembly (see Fig.2) employed in a communication system (see Fig.1 and col.2, lines 17-19) comprising:

a plurality of network devices (see Fig.1) capable of communicating network information (see abstract), through a packet switching network (see col.2, lines 2-5), to

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a technical support center (see col.1, lines 56-57: "service organization" and col.2, lines 2-5) operated by technical support staff (see col.13, lines 26-28: "network administrator"), said plurality of network devices coupled to said packet switching network through an interface line (see Fig.1 and col.3, lines 8-11), each of the plurality of network devices including one or more hardware subsystems and one or more software subsystems and for monitoring the status of the hardware and software subsystems included therein and when a problem occurs either with respect to one or more of the hardware and software subsystems of a particular one of the plurality of the network devices, the particular network device sends a first message to the technical support center notifying the technical support center of the problem (see abstract and col.1, line 63 to col.2, line 5) without interruption to the operation of the network device [implicit: According to the reference, Kodimer teaches that the network device, "NIB" is a network interface board which comprises it's own processor, memory, and instruction sets (see col.4, lines 23-40), for the purpose of communicating with devices and making responsive decisions (see col.4, lines 11-22), therefore, NIB performs it's operational functionality when the device that the NIB is monitoring triggers an event, thus inherently uninterrupted. The problem of the subsystems does not affect the operation of the network device, but rather affects the network device to respond], said network device assembly indicating the status of the hardware and software subsystems after a fault occurs (see col.12, line 52-56 & line 59 to col.13, line 2: "event triggered") and before device failure (inherent).

Kodimer does not explicitly teach wherein the network device assembly includes a computer register for performing the indicating of the status of all of the subsystems. Kirrmann teaches of a computer register for performing the indicating of the status of all of the subsystems (see abstract and col.4, lines 9-21).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Kirrmann within the system of Kodimer by implementing a computer register for performing the indicating of the status of all of the subsystems within the network device assembly because Kirrmann teaches that such implementation assists in minimizing computer down time and restores the computer status before the failure (see col.2, lines 47-51).

As per **claim 12**, Kodimer teaches a network device (see Fig.2) for use in communication with a technical support center (see col.1, lines 56-57: "service organization" and col.2, lines 2-5), the technical support center being in communication with the network device (see Fig.1) through a packet switching network (see col.2, lines 17-19 and col.3, line 65 to col.4, line 2), comprising:

an interface line coupling said network device to the packet switching network (see Fig.1 and col.3, lines 8-11); one or more hardware subsystems (see Fig.4);

one or more software subsystems (*inherent*; see col.1, lines 28-32; and col.12, lines 10-12);

means for monitoring the status of the hardware and software subsystems and said interface line (*implicit*: see col.4, lines 53-58) so that when a problem occurs with respect to one or more of the hardware or the software subsystems or the interface line,

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the network device transmits a first message to the technical support center to notify the technical support center of the problem (see abstract and col.1, line 63 to col.2, line 5) without interruption to the operation of the network device (see claim 1 rejection above); and

indicating the status of the hardware and software subsystems after a fault occurs (see col.12, line 52-56 & line 59 to col.13, line 2: "event triggered") and before device failure (inherent).

Kodimer does not explicitly teach wherein the network device assembly includes a computer register for performing the indicating of the status of all of the subsystems. Kirrmann teaches of a computer register for performing the indicating of the status of all of the subsystems (see abstract and col.4, lines 9-21).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Kirrmann within the system of Kodimer by implementing a computer register for performing the indicating of the status of all of the subsystems within the network device because Kirrmann teaches that such implementation assists in minimizing computer down time and restores the computer status before the failure (see col.2, lines 47-51).

As per **claims 24 and 25**, Kodimer teaches a method and a computer readable medium having stored therein computer readable program code comprising instructions (see Fig.3 and col.4, line 59), for detecting a problem in a network device (see abstract; Fig.19; and col.12, lines 34-36) comprising:

during the operation of the network device, the network device communicating network information through a packet switching network to a technical support center (see col.1, lines 56-57: “service organization” and col.2, lines 2-5), the network device being coupled to the packet switching network through an interface line (see col.3, lines 8-11), the network device including one or more hardware subsystems (see Fig.4) and one or more software subsystems (see Fig.1);

monitoring the status of the hardware and software subsystems (*inherent*; see col.1, lines 28-32; and col.12, lines 10-12) and the interface line (*implicit*; see col.4, lines 53-58);

detecting the occurrence of a problem associated with one or more of the hardware or software subsystems or the interface line (see abstract; Fig.19; and col.12, lines 34-36);

sending a first message to the technical support center for notification of the problem and to diagnose the problem without interruption to the operation of the network device (see abstract and col.1, line 63 to col.2, line 5 and claim 1 rejection above); and

indicating the status of the hardware and software subsystems after a fault occurs (see col.12, line 52-56 & line 59 to col.13, line 2: “event triggered”) and before device failure (*inherent*).

Kodimer does not explicitly teach wherein the network device assembly includes a computer register for performing the indicating of the status of all of the subsystems.

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Kirrmann teaches of a computer register for performing the indicating of the status of all of the subsystems (see abstract and col.4, lines 9-21).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Kirrmann within the system of Kodimer by implementing a computer register for performing the indicating of the status of all of the subsystems within the method and program because Kirrmann teaches that such implementation assists in minimizing computer down time and restores the computer status before the failure (see col.2, lines 47-51).

DEPENDENT:

As per **claims 2 and 14**, Kodimer further teaches wherein the interface line is an Internet line (see col.1, lines 54-58) and the first message is in the form of an email message (see col.13, lines 26-28).

As per **claims 3 and 15**, Kodimer further teaches wherein the first message is in the form of a fax transmission (see col.1, lines 16-19).

As per **claims 4 and 16**, Kodimer further teaches wherein the first message is in the form of a page (see Fig.16).

As per **claim 5**, Kodimer further teaches including a processor for executing embedded software for monitoring the status of the hardware and software subsystems (see Fig.2, #22).

As per **claims 6 and 17**, Kodimer further teaches wherein the packet switching network is the Internet (see col.1, lines 54-58).

As per **claim 8**, Kodimer further teaches wherein the computer register includes error messages (see col.1, line 15) for identifying a particular hardware or software subsystem failure (see Fig.19 and col.12, lines 34-40).

As per **claims 9 and 19**, Kodimer further teaches wherein each of the plurality of network devices includes a remote diagnostic embedded process subsystem (see Fig.17), a hardware health status monitor subsystem and a software health status monitor subsystem, the remote diagnostic embedded process subsystem for communicating with the hardware health status monitor subsystem and the software health status monitor subsystem and for collecting status information provided by the software health status monitor subsystem and the hardware health status monitor subsystem and for detecting problems encountered by the hardware and software subsystems (see col.1, line 63 to col.2, line 5).

As per **claims 10 and 22**, Kodimer further teaches wherein the plurality of network devices is responsive to a second message generated by the technical support center for requesting further information regarding the problem (see Fig.18. steps S1801-S1806 and col.14, lines 3-5).

As per **claims 11 and 18**, Kodimer further teaches wherein at least one of the plurality of network devices is an access server (see abstract: "network peripheral device").

As per **claim 13**, Kodimer further teaches wherein the technical support center is able to diagnose the problem without interruption to the operation of the network device (see col.10, lines 25-31 and col.12, line 52-56 & line 59 to col.13, line 2).

As per **claim 20**, Kodimer further teaches wherein the remote diagnostic embedded process subsystem detects an error message (see col.1, line 15) prior to the transmission of the first message (see Fig.19 and col.12, lines 34-40).

As per **claim 21**, Kodimer further teaches wherein the remote diagnostic embedded process subsystem detects certain criteria (see col.1, lines 47-53) regarding the status of the network device prior to the transmission of the first message (see Fig.19 and col.12, lines 34-40).

As per **claim 23**, Kodimer further teaches wherein the network device is in communication with a user and further wherein the technical support center includes an email server (inherency) coupled to a command-formatter for communicating with a user interface, the email server for collecting the first message (see col.13, lines 26-28), the command-formatter for translating the first message into a format that is understandable to the user and the user interface for displaying information communicated between the network device and the user (see Fig.12; col.5, lines 12-22; col.6, line 61 to col.7, line 2; and col.10, lines 64-67).

5. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kodimer et al. (US 6,003,078 A) and Kirrmann (US 4,905,196), further in view of Wiesenewsky (US 3,925,764 A).

As per **claim 26**, Kodimer further teaches wherein said plurality of network devices included memory (see Fig.2, #31 and #34) and of a remote diagnostic

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embedded process subsystem (see Fig.17), however Kodimer and Kirrmann do not explicitly teach wherein the remote diagnostic embedded process subsystem is coupled to a memory monitoring subsystem for monitoring the memory of the network devices. Wiesenewsky teaches of a memory monitoring subsystem for monitoring the memory of the network devices (see col.12, lines 21-26).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Wiesenewsky within the system of Kodimer and Kirrmann by enabling the memory monitoring subsystem for monitoring the memory of the network devices to couple the remote diagnostic embedded process subsystem within the communication system because Kodimer teaches that “condition” and “status information” is detected and obtained, respectively of the “network peripheral device” (see abstract). Therefore, to one of ordinary skill in the art, a database or a repository constitutes a network peripheral device, and as such if a database or a repository was implemented the NIB would conform to monitoring the elements of such devices within the remote diagnostic embedded process subsystem by the network administrator.

Response to Arguments

6. Applicant(s) argue that U.S. Pat. No. 4,905,196 (*Kirrmann*) does not explicitly “teach or even suggest indicating status after a fault occurs and before device failure”.

In response to applicant's arguments, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In the Non-Final Office Action mailed November 28, 2005 with regard to the deleted limitation ("immediately before the problem occurs") and again reiterated in this office action with regard to the new limitation ("after a fault occurs and before device failure"), U.S. Pat. No. 6,003,078 (*Kodimer et al.*) clearly teaches these limitations.

Kodimer teaches in column 12, lines 52-56 & line 59 to column 13, line 2, of a "network copier 11" (*network device*) detecting "a condition for which a service is required" (*after a fault occurs*) wherein the "condition might consist of an event triggered" means (*fault detection*) such as "exceeding a threshold quantity of usage" (*fault*). Clearly, *Kodimer* teaches of in response to the detected condition (after a fault occurs), "copier configuration and/or status information is output" (*indicating the status*). Clearly, it is inherent that such condition detection and notification steps occur before device failure because firstly the printer is able to remain printing and secondly, if the device failed, it would not be able to "output" information.

Kirrmann is only employed to teach of a computer register for performing the indicating of the status of all of the subsystems (see rejections above).

For the reasons above claims 1-6 and 8-26 remain rejected.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

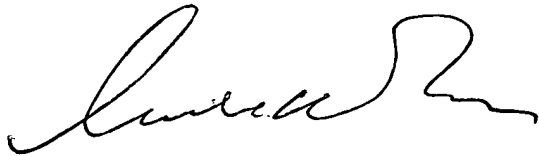
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Y. Won whose telephone number is 571-272-3993. The examiner can normally be reached on M-Th: 7AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on 571-272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael Won



April 24, 2006



SALEH NAJJAR
SUPERVISORY PATENT EXAMINER